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TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

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INTERNATIONAL APPLICATION NO.
PCT/GB99/04219

INTERNATIONAL FILING DATE
20 December 1999

PRIORITY DATE CLAIMED
18 December 1998

TITLE OF INVENTION
ELECTRONIC DATA STORAGE AND DISPLAY APPARATUS

APPLICANT(S) FOR DO/EO/US
JARMAN, David Michael

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:
 - 16a). Small Entity Statement - Independent Inventor
 - 16b). Small Entity Statement - Small Business Concern
 - 16c). International Preliminary Examination Report with
 - substitute specification page 2, and
 - substitute specification pages 12-16 containing amended claims 1-19.

FORM FTO-4790 (REV 12-77) 2002

[Rev. July 1996]

Docket No. _____

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR

Applicant or Patentee: David Michael Jarman
Application or Patent No.: PCT/GB99/04219
Filed or Issued: 20 December 1999
Title: ELECTRONIC DATA STORAGE AND DISPLAY APPARATUS

As a below-named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the United States Patent and Trademark Office described in -

- ☐ the specification filed herewith with title as listed above.
☒ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☐ No such person, concern, or organization exists.
☒ Each such person, concern or organization is listed below:

NAME Davtel International Limited
ADDRESS 11 Berkeley Street, Mayfair, London W1X 6BU, United Kingdom
☐ INDIVIDUAL ☒ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

NAME _____
ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

NAME _____
ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardise the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

DAVID MICHAEL JARMAN

NAME OF INVENTOR

DM Jarman

SIGNATURE OF INVENTOR

Date 18 June 2001

NAME OF INVENTOR

SIGNATURE OF INVENTOR

Date _____

NAME OF INVENTOR

SIGNATURE OF INVENTOR

Date _____

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application or Patent of
David Michael Jarman

Docket No.

Serial or Patent No: PCT/GB99/04219

Filed: 20 December 1999

For: ELECTRONIC DATA STORAGE AND DISPLAY APPARATUS

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
SMALL BUSINESS CONCERN

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
☒ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN: DAVTEL INTERNATIONAL LIMITED

ADDRESS OF CONCERN: 11 Berkeley Street, Mayfair, London W1X 6BU, United Kingdom

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.12 and in 37 CFR 1.9(d), for purposes of paying reduced fees to the United States Patent and Trademark Office, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons.

Definitions: For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled ELECTRONIC DATA STORAGE AND DISPLAY APPARATUS, by inventor David Michael Jarman described in

- ☐ the specification filed herewith
☒ application Serial No. PCT/GB99/04219, filed December 20 1999
☐ Patent No. _____ issued

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below and no

rights to the invention are held by any person, other than the inventor, who could not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

***NOTE:**

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entitled (37 C.F.R. 1.27)

NAME:

ADDRESS:

☐ INDIVIDUAL☐ SMALL BUSINESS CONCERN☐ NONPROFIT ORGANIZATION

NAME:

ADDRESS:

☐ INDIVIDUAL☐ SMALL BUSINESS CONCERN☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 C.F.R. §1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: David Michael Jarman

TITLE OF PERSON (IF OTHER THAN OWNER): Director

ADDRESS OF PERSON SIGNING: 11 Berkeley Street, Mayfair, London W1X 6BU, United Kingdom

SIGNATURE: DM JarmanDATE: 18/06/2001

SMALL BUSINESS

REV. (Via PTO) 7/12/89

Electronic data storage and display apparatus

5 This invention relates to electronic data storage and display apparatus, and in particular to such apparatus for the storage and display of electronic data that has commercial value such as electronically formatted books.

10 With the advances in the fields of microchip and display screen technologies, and allied computing advances it is becoming increasingly economically viable to produce apparatus that is easily portable and can store, manipulate and display large quantities of electronic data. There is, however, often a reluctance on the part of the owners of that data to release it to members of the public because of the ease of replication of electronic data. For data with commercial value such replication deprives the parties involved with the genesis and distribution of the data of a suitable reward for the production or distribution of that data. For example, if the data when rendered legible by suitable software is the text of a book, then if the data becomes available to the public not under the control of a distributor, copyright owner or the like, then if electronic copies of that data may easily be made, the publisher of that data and possibly others will suffer economic damage, for example being able only to sell fewer copies of a book than would otherwise be the case.

30 One approach is to render the data "copy-protected". This can be effective in some environments, though there is a widespread belief that copy-protection systems simply pose a challenge to those who would circumvent them. However, copy-protection systems which rely on encryption and decryption of data provide some effectiveness, for example as described in WO 97/44736. However, the system is cumbersome and not always user-

friendly. Systems which have been proposed for use in this area include those described in EP-A-0665486, WO 95/08231, WO 98/08344 and WO99/12087, though the last of these does not form part of the state of the art. All
5 seek to enhance the security against copying by using cryptographic techniques and generally require the use of encryption/decryption keys which are transmitted, after an authenticated request has been received, e.g. over a suitable communications link which has been
10 established for that purpose.

The present invention provides apparatus for the transmittal, reception, storage and display of data in an electronic format in which there is provided a casing
15 that includes a data storage means, a data display means, and a data transmission/reception means including at least one output/input port, and wherein the data transmission/reception means includes means for decrypting received data and placing it in the data
20 storage means, encrypting and transmitting data from the data storage means and means for storing at least one encryption key, and characterised in that the apparatus is configured such that one encryption key references addresses in a portion of Read Only Memory forming part
25 of the apparatus, and the content of those addresses is used to encrypt/decrypt transmitted/received data.

This approach, especially when used on a direct communications channel between user and information
30 provider, rather than via a wide area network such as the internet, is advantageous as there is never any need to engage in a key request dialogue. Instead, an encryption/decryption key may be generated and used by reference to the addresses of resident code areas in ROM
35 in the apparatus. This is explained in more detail below.

In use, for example when the user of the apparatus wishes to obtain an electronic version of a book, the user connects the apparatus of the present invention to an appropriate source of electronic data in the following manner:

- i) the apparatus enters into electronic communication with the data source and sends an identification code to the data source,
- ii) the data source confirms the identity of the apparatus and thereby determines what encryption key to use in communicating with the apparatus,
- iii) the user of the apparatus causes the apparatus to send a code to the data source identifying the data to be received by the apparatus,
- iv) the data source transmits the identified data in encrypted form to the apparatus which decrypts that data and places it in the data storage means,
- v) the data source transmits a new encryption key to the apparatus, which key overwrites the previous encryption key, and
- vi) the communication between the apparatus and the data source is broken.

By having the apparatus and the data source interact in this fashion, the electronic data is encrypted when it is travelling between the owners or distributors of the data and the legitimate end user of the data. Because the encryption key between the data source and the apparatus is altered after each transaction, it will be very difficult for an illegitimate receiver of the data to decrypt that data. Even if that does prove possible,

the illegitimate receiver only then gains the encryption key for one specific piece of apparatus the next time it connects to the data source and not the data source as a whole.

5

10

In a particularly preferred embodiment of the present invention the apparatus stores two encryption keys, one of which is stored in either Electronically Erasable Programmable Read Only Memory or non-volatile Random Access Memory, and the other of which is stored in Read Only Memory. The encryption key in the Electronically Erasable Programmable Read Only Memory or non-volatile Random Access Memory is the key that is rewritten when the apparatus interacts with a data store.

15

20

In a preferred embodiment of the present invention, the encryption key in the Electronically Erasable Programmable Read Only Memory or non-volatile Random Access Memory is 16 bytes in size. The portion of Read Only Memory, the content of which is used to encrypt/decrypt transmitted/received data, is preferably 256 bytes in size.

25

30

The data storage means in the apparatus of the present invention is preferably non-volatile random access memory. It may, however, alternatively be in the form of a magnetic disk, built into the casing and so constructed that attempts to remove the disc would result in the destruction of at least the data on the disc, or any other known data storage media which could be built into the casing.

35

The method of communication between the apparatus of the present invention and the data store is most preferably via the telephone network, and at least one input/output port in the casing is adapted to connect to that network most preferably via an electromagnetic radiation link.

In alternative embodiments other methods of connection the data source are possible and at least one input/output port in the casing is appropriately configured for that connection.

In a preferred embodiment of the present invention, the display means includes a display screen and computer hardware and software to enable presentation of the data in graphical and/or textual form. The computer hardware preferably includes user control means which will allow a user of the apparatus to move through the data in an appropriate fashion. The display screen of the present invention is preferably of sufficient size that the viewing area thereof is at least 110mm by 180mm. The screen is preferably of a type that has a low power consumption.

In an alternative embodiment of the present invention, the apparatus additionally includes known means for the generation of sound. The sound generation means can be controlled by the computer software that controls the display means, or by independent control means. In this embodiment the reader of, for example, a book about ornithology may be played the sound of the bird which he is reading about.

It will be appreciated that the size of the data storage means in the apparatus of the present invention will be finite. As such, and to avoid the problem of either having to delete and loose a previously acquired set of data, or having to acquire a new apparatus, the apparatus of the present invention is configured so that it can export some or all of the data stored in the data storage means. To prevent duplicatable and readable copies of the data being exported, the apparatus is configured only to export the data in an encrypted form.

It is clearly desirable that the exported data can be imported back onto the apparatus of the present invention, so that the data can be viewed again at a later date.

The data is preferably exported to and imported from a dedicated data store adapted to interact with the apparatus of the present invention. In the first preferred embodiment, the method of transfer of the data is as follows:

- i) the apparatus enters into electronic communication with the data store which sends an identification code to the apparatus,
- ii) the apparatus confirms the identity of the data store and thereby determines what data store encryption key to use in communicating with the data store,
- iii) the user of the apparatus causes the apparatus to transfer preselected data between the apparatus and the data store in encrypted form,
- iv) the receiver of the encrypted data decrypts that data and stores it,
- v) the apparatus transmits a new data store encryption key to the data store, which key overwrites the previous data store encryption key, and
- vi) the communication between the apparatus and the data store is broken.

In a second preferred embodiment the method of transfer of the data is as follows:

- i) the apparatus enters into electronic communication with the data store,
- 5 ii) the user of the apparatus causes the apparatus to transfer preselected data between the apparatus and the data store in encrypted form,
- iii) the receiver of the data stores the data, and
- 10 iv) the communication between the apparatus and the data store is broken.

In this second embodiment the data store stores the data in encrypted form. Preferably there is, however, a
15 little un-encrypted data attached to the encrypted data. That un-encrypted data can, for example, give an indication of the contents of the data, and/or the apparatus that placed the data in the data store and consequently the apparatus that can decrypt the data.
20 This will allow more than one piece of apparatus of the present invention to use the data store.

In either of the two above described embodiments, the data transfer between the apparatus and the data store
25 can be either via electrical or optical cables or via electromagnetic radiation.

The apparatus of the present invention may be provided with its own power source and/or means for taking power
30 from an external power source.

In one particularly preferred embodiment of the present invention, the apparatus is provided with a computer
35 chip that has the specification, details and method of operation as follows:

SPECIFICATION

EEPROM:	16 bytes of key memory (addresses 0 - 15). 112 bytes of user memory (addresses 16 - 127).
POWER:	5mA @5V when active 6mA @5V when writing to eeprom 10uA @5V in power saving mode.
CONVERSION RATE:	approx. 30KPS.

MASK LOOKUP TABLE

Rom address	0 = 255	starting with address 0 = 255 the rom table is filled by the following formula :
	1 = 254	
	2 = 253	
	3 = 252	
	4 = 251	
	5 = 250	
	
	
	
	250 = 5	
	251 = 4	
	252 = 3	
	253 = 2	
	254 = 1	
	255 = 0	

$$\text{rom table[address]} = 255 - \text{address}$$

ENCRYPTION/DECRYPTION OPERATION

Version 1.0 of crypto uses a key length of 16 bytes.

First write the 16 byte key to eeprom addresses 0 - 15.

Each byte of key is used to access an 8 bit mask from within a 256 byte lookup table.

Each data byte is encrypted/decrypted by exclusive oring it with the 8 bit mask.

As each byte of data is encrypted/decrypted the mask is rotated one bit position to the left.

After eight bit rotations a new mask is loaded using the next key in the sequence of sixteen.

The sequence of masks will be repeated again when all sixteen have been used.

OPERATION MODES

EEPROM WRITE (mode 0)

1. Wait until BUSY line is a logic low.
2. Write number 0 (binary 00000000) to PORT0.
3. Wait until BUSY line is a logic low.
4. Write eeprom address (0 - 127) to PORT1.
5. Wait until BUSY line is a logic low.
6. Write eeprom data to PORT2.

Steps 1 & 2 need only be done once to set eeprom write mode.

DECRYPT DATA (mode 1)

1. Wait until BUSY line is a logic low.
2. Write number 1 (binary 00000001) to PORT0.
3. Wait until BUSY line is a logic low.
4. Write data for decryption to PORT2.
5. Wait until BUSY line is a logic low.
6. Read decrypted data from PORT3.

Steps 1 & 2 need only be done once to set data decrypt mode.

ENCRYPT DATA (mode 2)

1. Wait until BUSY line is a logic low.
2. Write number 2 (binary 00000010) to PORT0.
3. Wait until BUSY line is a logic low.
4. Write data for encryption to PORT2.
5. Wait until BUSY line is a logic low.
6. Read encrypted data from PORT3.

Steps 1 & 2 need only be done once to set data encrypt mode.

EEPROM READ (mode 3)

1. Wait until BUSY line is a logic low.
2. Write number 3 (binary 00000011) to PORT0.
3. Wait until BUSY line is a logic low.
4. Write eeprom address (0 - 127) to PORT2.
5. Wait until BUSY line is a logic low.
6. Read eeprom data from PORT3.

Steps 1 & 2 need only be done once to set eeprom read mode.

RESET COUNTERS (mode 4)

This will reset the rotate counter & key index to zero.

1. Wait until BUSY line is a logic low.
2. Write number 4 (binary 00000100) to PORT0.

POWER SAVING (mode 5)

This will put the crypto pcb into sleep mode.

1. Wait until BUSY line is a logic low.
2. Write number 5 (binary 00000101) to PORT0.
3. Wait until BUSY line is a logic zero before proceeding.

Waking up the crypto unit from power saving mode

1. Do a dummy read from PORT0 or Write a new operation mode to PORT0.
2. Wait until BUSY line is a logic low before proceeding.

20 WAY IDC CONNECTOR PIN OUT & DESCRIPTION

1.	GND	Power supply 0V connection.
2.	+5/3.3 VDC	Power supply positive connection.
3.	\RESET	Active low external chip reset. Leave disconnected if control of reset is not required. The chip takes approximately 80mS to reset after a low to high transition of the reset pin.
4.	\RD	Active low read control input.
5.	\WR	Active low write control input
6.	\CS	Active low chip select input.
7.	A0	Port address select input.
8.	A1	Port address select input.
9.	D7	Bit 7 of bi-directional data bus.
10.	D6	Bit 6 of bi-directional data bus.
11.	D5	Bit 5 of bi-directional data bus.
12.	D4	Bit 4 of bi-directional data bus.
13.	D3	Bit 3 of bi-directional data bus.
14.	D2	Bit 2 of bi-directional data bus.
15.	D1	Bit 1 of bi-directional data bus.
16.	D0	Bit 0 of bi-directional data bus.
17.	BUSY	Active high busy output.
18.	\BUSY	Active low busy output.
19.	RxD	Serial data input (do not connect).
20.	TxD	Serial data output (do not connect).

Claims

- 1 Apparatus for the transmittal, reception, storage
5 and display of data in an electronic format in
which there is provided a casing that includes a
data storage means, a data display means, and a
data transmission/reception means including at
10 least one output/input port, and wherein the data
transmission/reception means includes means for
decrypting received data and placing it in the data
storage means, encrypting and transmitting data
15 from the data storage means and means for storing
at least one encryption key, and characterised in
that the apparatus is configured such that one
encryption key references addresses in a portion of
Read Only Memory forming part of the apparatus, and
20 so that the content of those addresses is used to
encrypt/decrypt transmitted/received data.
- 2 Apparatus according to claim 1 in which at least
one encryption/decryption key is stored in a
portion of either Electronically Erasable
Programable Read Only Memory or non volatile Random
25 Access Memory, and may be rewritten by an external
key issuing computer.
- 3 Apparatus according to claim 2 in which at least
one encryption key is 16 bytes in size.
- 30 4 Apparatus according to any one of claims 1 to 3 in
which the Read Only Memory is at least 256 bytes in
size.
- 35 5 Apparatus according to any one of claims 1 to 4 in
which the data storage means is comprised of non
volatile Random Access Memory.

- 6 Apparatus according to any one of claims 1 to 5 in which an output/input port is adapted to connect with a telephone socket via an electromagnetic radiation link.
- 5
- 7 Apparatus according to any one of claims 1 to 6 in which the display means includes a display screen and computer hardware and software to enable presentation of the data in graphical and/or textual form.
- 10
- 8 A method of using apparatus according to any one of claims 1 to 7 for the reception of electronic data from an external data source characterised in that:
- 15
- i) the apparatus enters into electronic communication with the data source and sends an identification code to the data source,
 - 20
 - ii) the data source confirms the identity of the apparatus and thereby determines what encryption key to use in communicating with the apparatus,
 - 25
 - iii) the apparatus sends a code to the data source identifying the data to be received by the apparatus,
 - 30
 - iv) the data source transmits the identified data in encrypted form to the apparatus which decrypts that data and places it in the data storage means,
 - 35
 - v) the data source transmits a new encryption key to the apparatus, which key overwrites the previous encryption key, and

vi) the communication between the apparatus and the data source is broken.

5 9 A method according to claim 8 in which the means of electronic communication between the apparatus and the data source is via the telephone network.

10 10 A method according to claim 8 in which the means of electronic communication between the apparatus and the data source is via the internet.

15 11 A method according to any one of claims 8 to 10 in which the electronic data is electronically stored text and/or graphics.

20 12 A method of using apparatus according to any one of claims 1 to 7 for the transfer of electronic data between the apparatus and an external data store characterised in that:

25 i) the apparatus enters into electronic communication with the data store which sends an identification code to the apparatus,

30 ii) the apparatus confirms the identity of the data store and thereby determines what data store encryption key to use in communicating with the data store,

35 iii) the apparatus causes the transfer of preselected data between the apparatus and the data store in encrypted form,

 iv) the receiver of the encrypted data decrypts that data and stores it,

v) the apparatus transmits a new data store encryption key to the data store, which key overwrites the previous data store encryption key, and

5

vi) the communication between the apparatus and the data store is broken.

13 A method of using apparatus according to any one of claims 1 to 7 for the transfer of electronic data between the apparatus and an external data store characterised in that:

10

i) the apparatus enters into electronic communication with the data store,

15

ii) the apparatus causes the transfer of preselected data between the apparatus and the data store in encrypted form,

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iii) the receiver of the data stores the data, and

iv) the communication between the apparatus and the data store is broken.

25

14 A method according to claim 13 in which the electronic data is transmitted from the data store to the apparatus, and is saved in the apparatus in decrypted form.

30

15 A method according to claim 13 in which the electronic data is transmitted from the apparatus to the data store, and is saved in the data store in encrypted form, the encryption key being a permanent encryption key for that data held in the apparatus.

35

- 16 A method according to any one of claims 12 to 15 in which the data store will on interrogation by the apparatus, provide the apparatus with a list of the data stored within the data store.
- 5
- 17 A method according to any one of claims 12 to 16 in which the means of electronic communication between the apparatus and the data store is via electrical or optical cable.
- 10
- 18 A method according to any one of claims 12 to 16 in which the means of electronic communication between the apparatus and the data store is via electromagnetic radiation.
- 15
- 19 A method according to anyone of claims 12 to 18 in which the electronic data is electronically stored text and/or graphics.
- 20

COMBINED DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION

Docket No. 4662

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled _____

Electronic Data Storage & Display Apparatus

the specification of which is attached hereto unless the following box is checked:

☒ [X] was filed on 20 December 1999 As United States Application

Number or PCT International Application Number PCT/GB99/04219

and was amended on 4th January 2001 (if applicable).

I hereby state that I have reviewed and understood the contents of the above identified specification including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed

PCT/GB99/04219
(Number)

PCT
(Country)

20 December 1999
(Day/Month/Year Filed)

Yes ☒ [X] No ☐ []

Yes ☒ [X] No ☐ []

9828093.6
(Number)

GB
(Country)

18 December 1998
(Day/Month/Year Filed)

COMBINED DECLARATION & POWER OF ATTORNEY

Docket No. 4662

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

(Application Number)	(Filing Date)
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(Application Number)	(Filing Date)
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I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States of PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Application No)	(Filing Date)	(Status-patented, pending, abandoned)
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(Application No)	(Filing Date)	(Status-patented, pending, abandoned)
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I (we) hereby appoint the following attorney with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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COMBINED DECLARATION & POWER OF ATTORNEY

Docket No. 4662

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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